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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,223	07/16/2003	Sui-Hing Leung	200207700-1	1224
22879	7590	01/04/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			MOUTTET, BLAISE L	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/621,223	LEUNG ET AL.
	Examiner	Art Unit
	Blaise L Mouttet	2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 03 December 2004.

2a)  This action is FINAL.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-49 is/are pending in the application.  
4a) Of the above claim(s) 2,9,10,13-15 and 17-19 is/are withdrawn from consideration.  
5)  Claim(s) 31-37 and 42-49 is/are allowed.  
6)  Claim(s) 1,6,11,12,16,20,40 and 41 is/are rejected.  
7)  Claim(s) 3-5,7,8,21-30,38 and 39 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 16 July 2003 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/16/03.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

**DETAILED ACTION**

***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:
  - i.) A method, graphical print, ink-jet apparatus, or imaging system including an alignment indicator wherein the alignment indicator is configured as a centerline position for a track of information data for determining offset from the centerline as described in view of the embodiments of figures 3A, 3B, 4 and 6.
  - ii.) A method, graphical print, ink-jet apparatus, or imaging system including an alignment indicator wherein the alignment indicator is configured as a factor for calculating skew using vertical lines as described in view of the embodiment of figure 2.
  - iii.) A method, graphical print, ink-jet apparatus, or imaging system including an alignment indicator wherein the alignment indicator is aligned with a lateral edge of a track of information data as described in view of the embodiments of figures 7, 8, 9A and 9B.
  - iv.) A method, graphical print, ink-jet apparatus, or imaging system including an alignment indicator wherein the alignment indicator is a delineation marker as described in view of the embodiment of figure 10.

Applicant's election of species III in the reply filed on December 3, 2004 is acknowledged. The applicant has listed claims 1-3, 5, 6, 9-11, 16, 20-22, 26-31, 33-36, and 38-42 as reading on the elected species. However the examiner disagrees with applicant's disposition of claims. Claim 2 does not fall within species III because it does

not cover an alignment indicator aligned with a lateral edge and instead call for the alignment indicator to be a centerline position as in species I. Claims 9 and 10 do not fall within species III since these claims do not cover the alignment indicator aligned with a lateral edge and instead call for delineation markers which falls under species IV. In addition claims 4, 7, 8, 12, 23-25, 37, and 43 are seen to either fall within species III or to be generic to all of the listed species. For purposes of examination the applicant's election of species III is confirmed.

Because applicant did not distinctly and specifically point out any supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 21, 38, 39, and 42 are generic and allowable. Accordingly, the restriction requirement as to the encompassed species is hereby withdrawn and claims 32 and 44-49, directed to the species of I (claim 32) or IV (claims 44-49) no longer withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowed generic claim. However, claims 2, 9, 10, 13-15, and 17-19 directed to respective species of I, II, or IV remain withdrawn from consideration since they do not depend upon or otherwise include all the limitations of an allowed generic claim as required by 37 CFR 1.141.

In view of the above noted withdrawal of the restriction requirement as to the linked species, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or

nonstatutory double patenting rejections over the claims of the instant application.

Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

***Information Disclosure Statement***

2. The IDS filed July 16, 2003 has been considered by the examiner.

***Claim Objections***

3. The format and syntax of the claims are objected to because of the following informalities:

In claim 4, lines 4 “..to active track servoing.” should read --to activate track servoing.-- in accordance with proper syntax.

In claims 12-20 the preambles should be in accordance with the claim 11 (i.e.-- A graphical print as set forth.. --).

In claim 13, line 3 “..centerline said data block..” should read --..centerline of said data block..-- in accordance with proper syntax.

In claim 21, line 9 “..when transported..” should read --..when said medium is transported..-- to clarify this portion of the claim.

In claim 38, line 2 “..for reading the track printed proximate..” should read --..for reading the track, wherein the track is printed proximate..-- to clarify this portion of the claim.

In claim 38, line 8 “..length said..” should read --length of said-- in accordance with proper syntax.

In claim 39, lines 2-3 “..for reading the track printed proximate..” should read --..for reading the track, wherein the track is printed proximate..-- to clarify this portion of the claim.

In claim 40, line 5 “..an non-printed pixel..” should read --a non-printed pixel-- in accordance with proper syntax.

In claim 40, line 7 “..single pixels in..” should read --..single pixels are formed in..-- in accordance with proper syntax.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Patton et al. US 5,757,468.

Patton et al. discloses, regarding claim 1, an image printing method comprising: receiving image data (the image data is received from filmstrip media to be placed on photographic paper as explained in column 3, line 62 – column 4, line 6);

receiving informative data (the data to print sound icons 12) associated with said image (column 4, lines 6-16);

generating data representative of at least one printable alignment indicator (160) for said informative data (the data in segment 160 of the sound icon data is alignment data as explained in column 5, lines 20-29); and

during a single pass of a single print medium (the photographic paper) through a printing zone (42), printing thereon said image data and said informative data with said alignment indicator proximate thereto (column 4, lines 12-16, figure 11).

Regarding claim 6, the alignment indicator (160) is aligned with a lateral edge of the circular tracks (the inner and outer rings) of the informative data (figure 7).

5. Claims 11, 12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Norris US 5,521,663.

Norris discloses, regarding claim 11, a graphical print comprising:  
an image area (photographic area of figure 4, 131); and  
a data area (data area of figure 4, 132) containing data information associated with said image (column 10, lines 1-10), wherein the data area includes at least one data block (audio information blocks 132a, 132b) and at least one marker (132c, 132d) formed substantially concurrently therewith and providing alignment registration indicia for reading said data block from said print wherein said indicia are situated and constructed for calculating alignment of said data relative to a predetermined path of a read sensor traversing said data block (column 10, lines 53-62, column 11, lines 30-40).

Regarding claim 12, the data block (132a, 132b) is a linear track and the marker (132c) is a plurality of lines printed proximate at least one end of the track at a position having a known distance from a given reference (132d) associated with an axis defining a print media path through a printing zone (figure 4, column 10, lines 1-10, wherein the printing is performed by light pulses in the direction of extension of the reference line).

Regarding claim 20, the data information is digitalized audio (column 10, lines 1-10).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norris US 5,521,663 in view of Kaaden et al. US 5,917,671.

Norris discloses the subject matter of claim 11 as explained in the 35 USC 102 rejection above.

Norris discloses that the data block (132a, 132b) is a linear track (figure 4).

Norris fails to disclose that the alignment registration indicia includes a top of track marker at each end of the track and a bottom of track marker at each end of the track.

Kaaden et al. is pertinent to reading of data blocks using tracking indicia such as performed by Norris (see abstract). Kaaden et al. teaches providing alignment registration indicia (i.e. tracking data for a read head) using top of track (11) and bottom of track (13) lines for track (12). Kaaden et al. teaches that this type of tracking indicia provides improved read head positioning (column 3, lines 32-50).

It would have been obvious to a person of ordinary skill in the art of data recording and reading at the time of the invention to use top of track and bottom of track markers as taught by Kaaden et al. with the alignment registration indicia in the graphical print of Norris.

The motivation for doing so would have been to improve read head positioning as taught by column 3, lines 32-50 of Kaaden et al.

7. Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris US 5,521,663 in view of Silverbrook et al. US 6,647,369 B1.

Norris discloses, regarding claim 40, a graphical image print comprising:  
an image region (131, figure 4) having a photographic image;  
an informative data region (132), wherein digital code is formed as individual pixels wherein non-printed pixels are represented by 1's or 0's and printed pixels are represented by the complementary digital 0's or 1's (column 10, lines 1-10), and wherein combinations of single pixels are formed in a two dimensional array for digitally coding audio information (column 10, lines 1-10); and  
at least one information data region marker (132c) for aligning a read head to said data region (column 11, lines 30-40).

Norris discloses, regarding claim 41, a print and read apparatus comprising:  
photography means and printing means to generate graphic images (131) and at least one field of audio data associated with the graphic images, wherein the digital audio data is printed with alignment indicia (132c) (column 9, line 34 – column 10, line 23); and

means for reading and playing (figure 5) said digital audio data and alignment indicia, wherein said alignment indicia (132c) is read in conjunction with the digital audio data for maintaining reading timing alignment between the means for reading and playing and said at least one set of digital audio data (column 11, lines 30-40).

Norris fails to disclose, regarding claims 40 and 41, that the graphical image is a dot matrix array of colored pixels (claim 40) or that the photography and printing system is means for printing digital data (claim 41).

Silverbrook et al. is pertinent to camera systems including both visual and audio recording of information and a playback subsystem such as taught by Norris (column 1, lines 50-58, column 2, lines 25-29). Silverbrook et al. teaches using a digital color inkjet printhead, which prints in dot matrix patterns, as the printing device for printing both the photographic image captured by the camera and the audio data (column 3, lines 57-65, column 4, lines 24-28).

It would have been obvious to a person of ordinary skill in the art of data recording in camera systems at the time of the invention to use a digital inkjet printing device, such as taught by Silverbrook et al., as the means for forming the photographic image and audio data in the camera system of Norris.

The motivation for doing so would have been that using a single printhead to print both the image and data provides a simpler apparatus as indicated by column 4, lines 32-33 of Silverbrook et al.

#### ***Additional Prior Art***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Luhrs US 3,678,220 and Trabert et al. US 6,430,008 are examples of detection and correction of skew in a recording media. However the skew is not detected for a track of audio data arranged adjacent a printed graphical image.

***Allowable Subject Matter***

9. Claims 21-39 and 42-49 are allowable provided the above noted claim objections are corrected.

Claims 3-5, 7, and 8 are objected to as being dependent upon a rejected base claim and as noted above, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and provided the minor objections are corrected.

Regarding claim 21, and the claims dependent therefrom, while the prior art teaches inkjet printing of audio data with image data the playback means is provided separately in the prior art as opposed to being connected to a common controlling means as that of the transport means, carriage means, encoding means, printhead means, and sensing means as claimed.

Regarding claim 31, and the claims dependent therefrom, while the prior art teaches calculation and compensating for offset/skew of an audio data track there is no reasonable motivation in the prior art to combine these teachings with the concurrent printing of photographic and audio data as claimed.

Regarding claims 38 and 39, while the prior art teaches calculation of track skew of a track, the claims call for the track to be printed proximate a substantially contemporaneously recorded and printed graphical image. This combination is not shown or rendered obvious by the art of record.

Regarding claim 42, and the claims dependent therefrom, while a digital camera with a printer for printing image and audio data is shown by the prior art the claims call

for an audio recording and playback system to be a subsystem of the camera whereas in the prior art the playback systems are provided separately from the camera (as opposed to as a subsystem of the camera).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet January 3, 2005

*Blaise Mouttet Jan 3, 2005*